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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,991	01/20/2004	William D. Bolin	2009	7904

7590 06/16/2005
William B. Miller
123 Robert S. Kerr Avenue
Oklahoma City, OK 73102

EXAMINER

DANG, HOANG C

ART UNIT PAPER NUMBER

3672

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,991

Applicant(s)

BOLIN ET AL.

Examiner

Hoang Dang

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-7 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 8-11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al (US 4,832,127) or Vandelier et al (US 4,749,034) in view of Hartman et al (US 2002/0153141) or Mack et al (US 5,845,709).

Vandelier et al or Hartman et al discloses the invention as claimed except that the electrical submersible pump is not positioned below the hydrocarbons-producing interval. However, it is well known in the art to position an electrical submersible pump in a wellbore below the hydrocarbon-producing zone so that production fluids entering the pumping system pass in fluid contact with the exterior portions of the electrical motor and remove heat therefrom before entering the production intakes (see Paragraph [0013] in Hartman et al or figure 3 and column 4, lines 40-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to position the pump of Thomas et al or Vandelier et al below the hydrocarbon-producing interval in view of the teaching of Hartman et al or Mack et al for the advantage pointed out above.

As for claim 4, see column 4, lines 58-61 in Thomas et al.

As for claims 9-11, 13 and 14, the intended use "for producing a low pressure water-containing gas interval" is given no patentable weight since it has been held that a recitation with

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respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

In any event, the apparatus of Thomas et al or Vandelier et al as modified by Hartman et al and Mack et al are clearly capable of doing so.

As further for claim 14, it is obvious to provide Thomas et al and Vandelier et al with a manually or automatically controlled valve and/or a flow meter as claimed so that the flow of water can be controlled since they are well known and provided for the same purposes.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al (US 4,832,127) or Vandelier et al (US 4,749,034) in view of Hartman et al (US 2002/0153141) or Mack et al (US 5,845,709) as applied to claim 1 above, and further in view of Cholet et al (US 5,348,094).

Thomas et al or Vandelier et al, as modified by Hartman et al or Mack et al, disclose the invention as claimed except that Thomas et al and Vandelier et al use water rather than a less viscous crude oil to reduce the viscosity of the produced fluid. However, Cholet et al disclose a method for pumping viscous liquid from a well and teach that water or a less viscous oil can be used a thinner fluid. To use a less viscous crude oil in place of water as a thinner fluid in Thomas et al or Vandelier et al would have been obvious to one of ordinary skill in the art at the time the invention was made.

4. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al (US 4,832,127) or Vandelier et al (US 4,749,034) in view of Hartman et al (US 2002/0153141) or

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Mack et al (US 5,845,709) as applied to claim 1 above, and further in view of Parker et al (US 4,896,725).

Thomas et al or Vandelier et al, as modified by Hartman et al or Mack et al, disclose the invention as claimed except that Thomas et al and Vandelier et al do not disclose the step of heating the liquid from the surface before it is injected into the well. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the injected liquid of Thomas et al or Vandelier et al as because it is well known to inject a heated liquid into a producing for removal of paraffin deposits from production tubing and wellbore as evidenced by Parker et al (see column 1, lines 63-66).

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al (US 4,832,127) or Vandelier et al (US 4,749,034) in view of Hartman et al (US 2002/0153141) or Mack et al (US 5,845,709) as applied to claim 9 above, and further in view of Smith (US 1,716,709) or McClaffin (US 4,605,069).

Thomas et al or Vandelier et al, as modified by Hartman et al or Mack et al, disclose the invention as claimed except that in Thomas et al or Vandelier et al the liquid is injected through a separate tubing that is parallel to the production tubing. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to inject liquid through an annulus formed between the production tubing string and an outer tubular string in Thomas et al or Vandelier et al since such an arrangement has been used in the art as an obvious, fully equivalent, alternative means for introducing fluids to a downhole pump as evidenced by Smith or McClaffin.

Allowable Subject Matter

6. Claims 5-7 are allowed.

Specification

7. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

8. The abstract of the disclosure is objected to because the abstract exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

The abstract of the disclosure is further objected to because the word "means" in line 8 should be avoided. Correction is required. See MPEP § 608.01(b).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

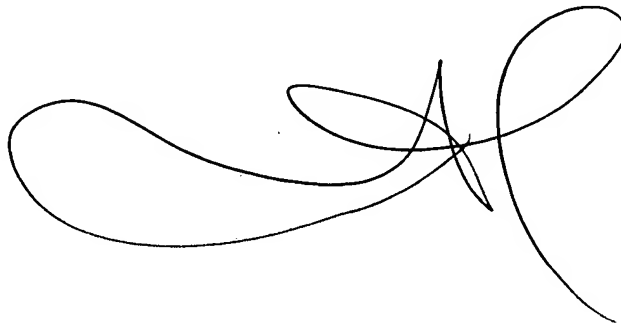
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Dang whose telephone number is 571-272-7028. The examiner can normally be reached on 9:15-5:45 Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoang Dang
Primary Examiner
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A handwritten signature in black ink, consisting of a large, stylized loop on the left and a series of overlapping loops and strokes on the right, ending in a long, sweeping tail.